

Application No. 09/686,621  
Amendment filed May 26, 2004  
Reply to Office Action dated January 26, 2004

Attorney Docket No. 027557-063  
Page 9 of 14

Remarks

Claims 1-31 are pending, with claims 1, 2, 7, 8-10, 13-16, and 23-26 being in independent form.

The title of the application has been objected to by the Examiner. Applicant has amended the title of application to address the Examiner's concerns.

Claims 1, 2, 7-10, 13, 14, and 25-26 stand rejected for anticipation by U.S. Patent No. 5,519,886 to Gilbert et al. ("Gilbert") and claims 15-17, 23, 24, and 25-31 stand rejected for anticipation by GB Patent No. 2 328 588 to Seo ("Seo"). Claims 3-6, 11, 12, 18-22, 28 stand rejected for obviousness over various combinations of Gilbert, Seo, and U.S. Patent No. 5,883,493 to Koenck ("Koenck"), U.S. Patent No. 5,475,741 to Davis et al ("Davis"), U.S. Patent No. RE 36,973 to Shigemori ("Shigemori"), U.S. Patent No. 5,870,685 to Flynn ("Flynn"), and U.S. Patent No. 5,248,929 to Burke ("Burke"), U.S. Patent No. 5,774,784 to Ohno ("Ohno"), and U.S. Patent No. 6,490,447 to Biedermann ("Biedermann").

Each of these rejections is respectively traversed.

Claim 1 defines a method of operating a radio transceiver that includes monitoring a temperature which has a direct effect on the comfort of a user of the transceiver and controlling a number of slots allocated for transmissions from said transceiver in response to the monitored temperature.

To support a rejection under 35 U.S.C. § 102, each and every feature of the claimed invention must be shown in a single prior art document. Moreover, to establish a prima facie case of obviousness, the cited documents must teach or suggest all of the claim limitations. As discussed below, the claims positively recite limitations that are neither disclosed, nor suggested in the cited documents and are therefore not anticipated by, nor obvious in view of the cited documents.

The examiner contends that Gilbert discloses monitoring a temperature that has a direct effect on the comfort of a user of the transceiver and controlling a number of slots allocated for transmission from said transceiver in response to the monitored temperature using a "broad but reasonable interpretation" of the phrases "comfort of a user" and "number of slots." Applicant disagrees.

The Action has construed the terms "comfort of a user" and "number of slots" in Applicant's claims so broadly that they have lost all meaning. This is contrary to

Application No. 09/686,621  
Amendment filed May 26, 2004  
Reply to Office Action dated January 26, 2004

Attorney Docket No. 027557-063  
Page 10 of 14

Section 2111.01 of the MPEP, which provides that "the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification", citing In re Zletz, 893 F.2d 319, 321, 13 U.S.P.Q.2d 1320, 1322 (Fed. Cir. 1989). Section 2111.01 emphasizes that "It is only when the specification provides definitions for terms appearing in the claims that the specification can be used in interpreting claim language," citing In re Vogel, 422 F.2d 438, 441, 164 U.S.P.Q. 619, 622 (C.C.P.A. 1970). The Office's overbroad interpretation is also inconsistent with more recent authority that requires Office personnel to rely on an Applicant's disclosure to properly determine the meaning of terms used in the claims. Markman v. Westview Instruments, 34 U.S.P.Q.2d 1321, 1330 (Fed. Cir. 1995) (in banc) [subsequent history omitted].

The term "comfort of the user" is clearly defined in Applicant's specification. For example, the specification states, at page 4, ll. 17-20, "the device may include at least one sensor which detects a temperature of a part of the device which has a direct effect on the comfort of the user, for example because it is contacted by the user." Moreover, the specification at page 10, ll. 17-21, describes, "if the device can be operated in a hands free mode... the heating of the device may also be of less concern, since it will not be next to the user's head."

It is therefore clear that the "comfort of the user" as defined in the claims refers to heat that is actually felt by a user, i.e., via a user's sense of touch, through contact with the transceiver.

Gilbert, in contrast, merely discloses the measurement of a temperature of a temperature sensitive component, such as a power amplifier, rather than monitoring a temperature that has a **direct effect on the comfort of a user**, as in claim 1. It is clear that Gilbert is only concerned with the overheating and damage of specific temperature sensitive components. See, for example:

Col. 1, ll. 32-35:

The heat sink protects the power amplifier, and surrounding components, from damage due to excessive heat. With the increasing miniaturization of communication devices, it has become more difficult to ensure that critical components within the communication devices are protected from excessive heat through appropriate heat dissipation paths.

Col. 1, ll. 45-50:

Application No. 09/686,621  
Amendment filed May 26, 2004  
Reply to Office Action dated January 26, 2004

Attorney Docket No. 027557-063  
Page 11 of 14

Long continuous transmissions, or consecutive shorter transmissions, can result in sufficient heat to overcome the heat dissipation protection of the device, and damage critical components within the device.

Col. 1, II. 51-54:

It is desirable to avoid overheating conditions in a communication device which could ultimately cause damage to internal components, or which could reduce performance of the communication device.

Col. 3, II. 61-67:

In the preferred embodiment, the heat sensitive portion comprises a radio frequency (RF) power amplifier, which can be adversely impacted by a substantial increase in temperature. Additionally, the RF power amplifier is characterized by a maximum allowed temperature of the RF power amplifier that does not overly compromise performance.

Accordingly, Gilbert does not disclose (or suggest) "monitoring a temperature which has a direct effect on the comfort of a user of the transceiver," as defined by claim 1.

Moreover, Gilbert does not disclose (or suggest) "controlling a number of slots allocated for transmissions from said transceiver in response to the monitored temperature," as defined by claim 1. Gilbert instead discloses dividing a message into smaller packets to reduce the periods of continuous transmission or delaying the transmission of a message or packet (see col. 4, II. 40-48). As can be appreciated by one skilled in this art, slot allocation can be changed without changing message packet size or delaying a message packet and, inversely, message packets can be changed without performing any changes to the slot allocation at all. Slot allocation refers to the resources set aside for the transceiver, not the data being transmitted. As described in the specification, beginning on page 5, line 5, with reference to FIG. 3, Applicant has identified that the temperature of the device can be controlled by controlling the allocation of slots for the device. For example, assigning fewer slots will reduce temperature.

Accordingly, since the cited document(s) fails to disclose or suggest all of the claim limitations for at least the above reasons, the anticipation rejection of claim 1 should be withdrawn. Claims 2, 7-10, 13, 14, 25, and 26 are also not anticipated by Gilbert for at least the same reasons. Moreover, for at least the above reasons, the respective dependent claims, namely claims 3-6, and 11-12, are not anticipated by

Application No. 09/686,621  
Amendment filed May 26, 2004  
Reply to Office Action dated January 26, 2004

Attorney Docket No. 027557-063  
Page 12 of 14

Gilbert nor are they obvious in view of Gilbert and any of Koenck, Davis, Flynn, and Shigemori, because none of these documents cure the deficiencies of Gilbert.

Moreover, claims 2, 8, 10, and 14 are not anticipated by Gilbert for additional

reasons. Claim 2, for example, defines a method of operating a radio transceiver including monitoring a temperature which has a direct effect on the comfort of a user of the transceiver and controlling a number of slots allocated for receiving transmissions in said transmitter in response to the monitored temperature. Each of the other claims also relate to controlling a number of slots allocated for receiving transmissions.

Gilbert does not even consider controlling a number of slots allocated for receiving transmissions. Throughout Gilbert, only transmission of data is discussed. In fact, Gilbert is only concerned with reducing the operating temperature of the RF power amplifier, which is only associated with the transmission of data and not the reception (see item 244 in FIG. 2). Gilbert states:

Col. 4, ll. 27-34:

When transmission would result in an unacceptable temperature, step 350, i.e., the predicted temperature would exceed a maximum allowable temperature for the power amplifier or other temperature sensitive portion, a modification in the operation of the data communication protocol is effected through a modification of transmission parameters, step 360.

Col. 4, ll. 4-6:

The data communication protocol has some modifiable operating parameters which determine transmission characteristics.

Accordingly, claims 2, 8, 10, and 14 are novel and inventive these additional reasons as well, since Gilbert is concerned solely with the transmission of data from the device, and does not consider modifying the operation of the data communication protocol when receiving transmissions.

Moreover, for at least all the above reasons, the respective dependent claims, namely claims 3-6, 11-12, and 28, are not anticipated by Gilbert nor are they obvious in view of Gilbert and any of Koenck, Davis, Flynn, Biedermann, and Shigemori, because none of these references cure the deficiencies of Gilbert.

Claims 15-17, 23, 24, and 25-31 stand rejected for anticipation by Seo. Seo describes monitoring the remaining battery capacity of a terminal, and "controlling a

Application No. 09/686,621  
Amendment filed May 26, 2004  
Reply to Office Action dated January 26, 2004

Attorney Docket No. 027557-063  
Page 13 of 14

"slot cycle" on the basis of the remaining capacity. Seo is therefore concerned with modifying the "slot cycle index", which relates to the cycle in which the terminal searches for a signal received from a base station (see p. 1, ll. 8-26). Clearly this is not the same as modifying the number of slots which are allocated to the terminal for transmission or reception of data.

Accordingly, Seo does not disclose (or suggest) "controlling a number of slots allocated for transmissions from said transceiver in response to the monitored battery capacity," as defined in claims 15 and 16, a controller for controlling a number of slots allocated for transmissions from said transceiver in response to the monitored battery capacity," as defined in claims 23 and 24, or "controlling a number of slots allocated for transmissions from said transceiver based on a mode of operation of said transceiver," as defined in claims 25 and 26. Claims 15-17, 23, 24 and 25-26 are therefore not anticipated by Seo.

Moreover, for at least the above reasons, the respective dependent claims, namely claims 18-22 and 27-31, are not anticipated by Seo, nor are they obvious in view of Seo and any of Burke, Ohno, and Biedermann, because none of these documents cure the deficiencies of Seo.

Accordingly, since the cited documents fail to disclose or suggest all of the claim limitations for of the respective claims at least the above reasons, both the anticipation and the obviousness rejections of all the claims should be withdrawn.

Moreover, if one had attempted to combine the disclosures of the various cited documents, one would have been more likely to arrive at something that did not work at all or not in the manner claimed by the present application. As discussed above, one of ordinary skill in the art would have known that the features of the various documents cannot be combined without further modification to reach the subject matter defined by the claims. In the absence of any suggestion in the cited documents of how to make such a combination operable, one would have faced a serious engineering problem that naturally would have had a low probability of success without substantial experimentation and effort, especially in view of the need to modify the teachings of the documents. It is well settled that "[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not

Application No. 09/686,621  
Amendment filed May 26, 2004  
Reply to Office Action dated January 26, 2004

Attorney Docket No. 027557-063  
Page 14 of 14

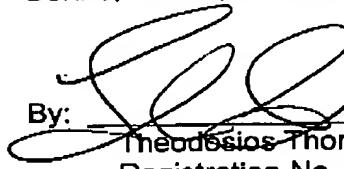
make that modification obvious unless the prior art suggested the desirability of the modification." In re Fritch, 23 U.S.P.Q.2d 1780, 1783-84 (Fed. Cir. 1992).

Accordingly, Applicant asserts that the combination of documents relied upon to support the obviousness rejections of the various claims is improper, and respectfully requests the claim rejection be reconsidered and withdrawn for this reason also.

For the foregoing reasons, Applicant considers the application to be in condition for allowance and respectfully request notice thereof at an early date. The Examiner is encouraged to telephone the undersigned at the below-listed number if, in the Examiner's opinion, such a call would aid in the examination of this application.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

  
By: Theodosios Thomas  
Registration No. 45,159

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(919) 941-9240

Date: May 26, 2004

I hereby certify that this correspondence is being sent by facsimile transmission to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 to the following facsimile number:

Facsimile Number: 703 872 9306  
Date of Transmission: May 26, 2004

Sandra B. Page  
Sandra B. Page